Olympus C-2040Z Digital Camera User Guide

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Description of the Olympus C-2040Z Digital Camera

Front of Camera
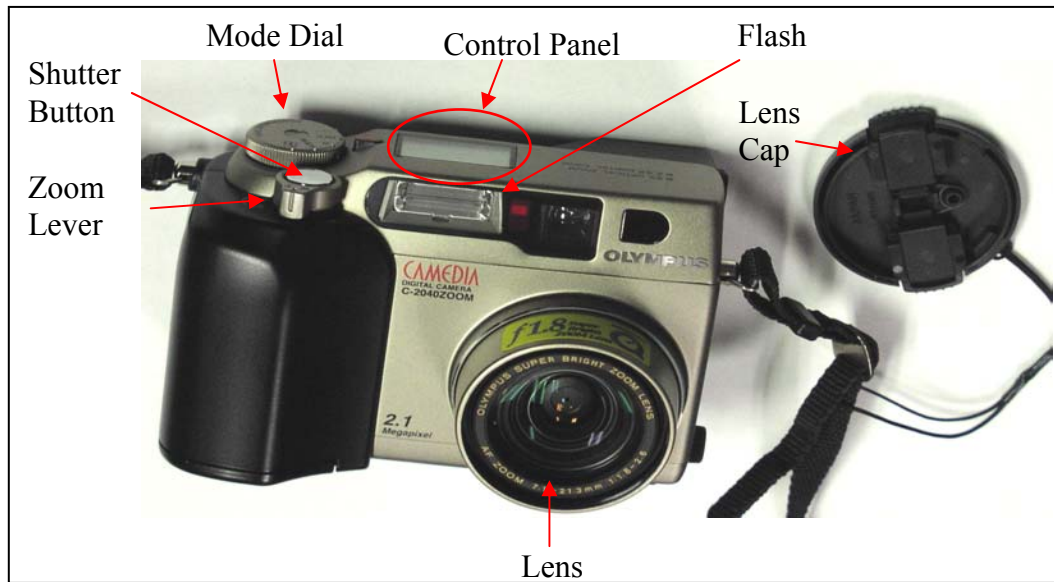
|		
Control Panel:	Displays current camera settings, number of images available for shooting, memory and battery status.	
Flash:	The built in flash is located at the front of the camera. It will fire automatically if it is needed.	
Lens:	The lens is capable of up to 3x zoom and extends automatically when the camera is powered up, so it is important to remove the lens cap before turning on the camera.	
Mode Dial:	This control is used to turn on the power of the camera and select the shooting mode.	
Shutter Button:	This button is used primarily to focus the camera and take pictures.	
Zoom Lever:	This control is used to adjust the level of zoom used in taking pictures.	
Manual Reference:	Pages 23 - 25	

Back of Camera
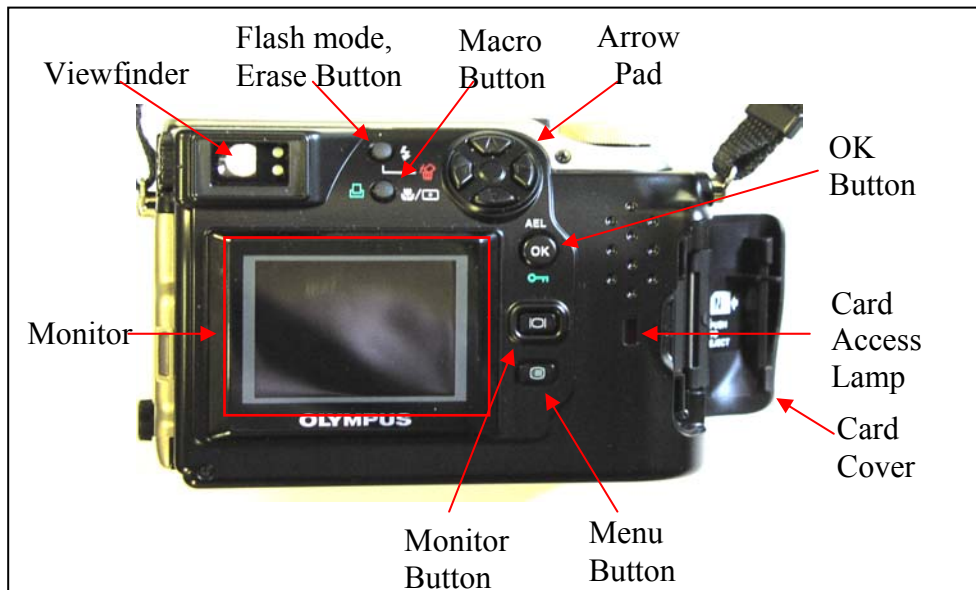
Arrow Pad: Used primarily to navigate between menu options displayed on the monitor

Card Access Lamp: Flashes to indicate that the camera is writing to or reading the Smartmedia card

Card Cover: Covers the slot for the Smartmedia card

Flash Mode/ Erase Button: Used both to set the flash mode and to erase stored images

Macro Button: Used to set the imaging mode to macro or spot metering or both. These functions are used to shoot images of subjects very close to the camera.

Menu Button: Used to call up the camera menu on the monitor.

Monitor Button: Used to turn on and turn off the monitor built into the camera.

Monitor: Used to compose images, review the images that have been stored in the camera or to interact with the camera menus

OK Button: Used to accept menu choices, may also be used for other camera functions

Viewfinder: Used to compose pictures, also has two lamps that indicate focus and flash status

Manual Reference: Pages 23 - 25

Left Side and Bottom of Camera

Diopter
Adjustment Dial

DC IN Jack

Video Out Jack

USB Connector
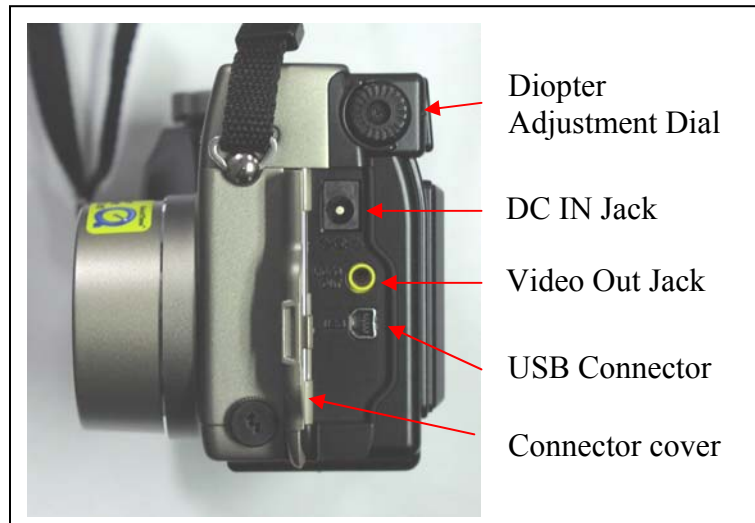
Connector cover

Connector Cover:	The hinged door that protects the camera connectors
DC IN Jack:	Used to connect the camera to an external power source
Diopter Adjustment Dial:	Allows users to adjust the focus of the viewfinder
USB Connector:	Used to connect the camera directly to a PC using a USB cable. This feature is not supported on the current CCE computers
Video Out Jack:	Allows the images stored on the camera to be viewed on a TV or video monitor
Battery Compartment Cover:	The hinged door that covers the battery compartment
Battery Compartment Lock:	This switch locks the battery door. It is pictured in the locked position.
Tripod Socket:	Used to mount the camera on a shooting support
Manual Reference:	Pages 23 - 25

Battery Compartment Cover

Battery Compartment Lock

Tripod Socket

Description of the Olympus BU-100 Battery Charger

Battery
Charging
Cradle

Power
Cord

Charge
Indicator
Lamp

The batteries that come in the Service Center digital camera kit are rechargeable NiMH. One of the advantages of NiMH batteries is that they do not have "memory", so they can be recharged without being fully discharged.

These batteries come with a charger that should be used with the following guidelines:

- All of the batteries go in the charger pointed in the same direction

- Never load batteries into or remove batteries from the charger while it is plugged in

- The charge lamp will light while the batteries are charging and will go off when they are fully charged.

- Normal charge time for 2 batteries is 110 minutes, 210 minutes for 4 batteries.

- When using batteries to power the camera, only use groups of batteries that have the same level of charge. Ideally they should be freshly charged.

- Do not use these batteries to power devices other than the camera

- Recharge the batteries if they have been sitting unused for a while because they will discharge on their own.

Refer to manual included with battery charger for more details

Installation of Camera Batteries and Memory Media
Battery Installation

Battery Compartment

The illustration shows the rechargeable batteries in the proper configuration in the camera with the battery compartment door open. Normal single use AA batteries can also be used in the camera and are used in the same way as the rechargeable ones.
For the initial training, the camera will be loaded with the two lithium battery packs that come in the original packaging.
For further reference, see pages 29 – 32 in the camera manual.

Memory Card Installation and Removal

The Smartmedia card slides into a slot behind the card cover door.
- The camera must be off when inserting or removing the memory card.
- The illustration shows the correct orientation for inserting the card. The card will only fit in one way and that is also illustrated inside the card cover door.
- Remove the card by pressing it into the camera and then allowing it to eject part way from its slot. Pull the card the rest of the way out of the camera.

Establishing Camera Settings

Turn on the Camera

Remove the lens cap before turning on the power.

Turn on the camera by turning the mode dial to one of the three (3) image capture modes or the playback mode. "P" is the program or automatic mode. This setting will work well for most service center imaging needs. The other modes will be addressed later in this manual.

The camera has a menu driven interface. Press the menu button at the back of the camera to access the menu the mode that you are currently in. Menus have different items for each camera mode, for example image playback and image capture will have different menu choices.

Use the up and down arrows on the arrow pad to navigate among the menu items. Use the right arrow to display the options for an item. Use the arrows to select one of the options presented and the "OK" button to accept the choice you have made.

We will use the menu system to set the time and date that the camera records for the images that you take. Having the correct time can be important for record keeping and possibly for matching the images with GPS positions.

Setting Time and Date

⟳   1 . 1 . '00

0 : 00
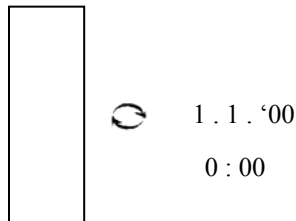
i)   Press the menu button on the back of the camera
ii)   Press the up arrow on the arrow pad to scroll up until "Mode Setup" is selected
iii)   Press the right arrow and the "setup" box will appear to the right of "Mode Setup"
iv)   Press "OK" to enter the "mode setup" screen
v)   Press the up button on the arrow pad to highlight the icon that looks like a clock face.
vi)   Press the right arrow button to display the setup box and press "OK"
vii)   The time and date setting field should be displayed. There will be fields to set the Month, Day, Year, Hour and Minute. The first icon, the arrows forming a circle, can be used to set the date format. You can select day/month/year, month/day/year, or year/month/day.
viii)   Use the left and right keys to select between fields and use the up and down keys to set the fields, ie month or hour.
ix)   When you have set the time press "OK" until you get all the way out of the menus.

For further reference, see manual pages 38 – 40.

Setting Image Mode

Mode		Resolution	Compression	Number of Images on a 8MB Card
Still Camera Mode				
TIFF		1600 X 1200	Uncompressed	1
		1024 X 768		3
		640 X 480		8
SHQ		1600 X 1200	Low-compressed JPEG	7
HQ		1600 X 1200	Standard JPEG	16
SQ1	High Quality	1024 X 768	Standard JPEG	13
	Normal			38
SQ2	High Quality	640 X 480	Standard JPEG	32
	Normal			82
Movie Camera Mode				
HQ		320 X 240	N/A	11 Sec.
SQ		160 X 120	N/A	52 Sec.

Image resolution can be selected from five (5) different settings for still images and from two (2) settings for movies. The image modes are summarized in the table above.

Image mode is set in the menu system. The menu item for setting the image mode is symbolized by an icon that looks like a diamond coming apart at the right edge.

- The default mode is HQ
- SQ2 is the lowest resolution, and the image resolution, or quality, increases in the following order: SQ2, SQ1, HQ, SHQ, TIFF
- The storage size of the images increase with the quality of the images you are taking.
- There are two(2) image resolution settings for movies, SQ and HQ.
- Unless the "All Reset" menu item is set to "OFF", the default resolution mode (HQ) will be reselected when the camera is turned off. "All Reset" is a menu item of the "Mode Setup" menu.

See the camera manual pages 111-112 for more information about image modes

Camera Operation

Take and Image in Program Mode

- Aim the camera by placing the autofocus mark on your subject.
    - The autofocus mark is an open crosshair in the viewfinder

    - On the monitor, the autofocus mark is a pair of square brackets

- Press the shutter button down half way to focus
    - The green lamp next to the viewfinder will be lit steadily when the camera is focussed. The lamp will blink if the camera cannot focus

    - The flash will fire automatically of it is needed

    - The amber lamp next to the viewfinder will be lit steadily if the camera will flash. The amber light will blink if the camera determines that a flash is needed but it will not fire because the flash is disabled or recharging.

    - The focus of your image can be made off center by first focussing on the subject in the canter of the view frame and then shifting the view frame while holding the shutter button halfway depressed.

- Press the shutter button down all the way to take the picture

    - The card lamp will flash while the image is being written to the memory card

The number of pictures that will fit on the memory card, using the current resolution mode, is displayed on the control panel and in the left hand corner of the camera monitor. For further reference, see pages 60 –64 in the camera manual.

Using Zoom
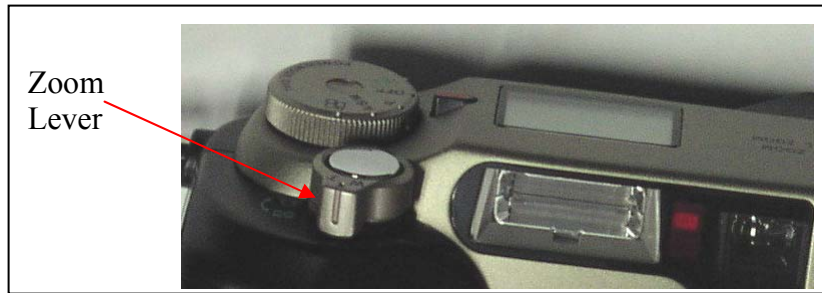
Zoom
Lever

The C-2040Z camera has an optical zoom lens that can give you up to 3X magnification. Additionally, you can select to use "digital zoom" to get further magnification of your images. The digital magnification comes at the expense of resolution though, so it should be used judiciously.

The zoom lever that is built around the shutter button is used to control the level of zoom. Pushing the lever toward the lens will zoom out to a wide angle shot. Moving the lever away from the lens will zoom in for a telephoto shot.

Digital zoom is turned on through the menu system. To activate it:

- Press the menu button on the back of the camera

- Use the up arrow key to select "Digital Zoom", "OFF" is the default setting and should be displayed to the right of the digital zoom box.

- Press the right arrow key and the "ON" choice should be displayed below "OFF"

- Use the down arrow to select "ON" and press the "OK" button

- Press the "OK" button again to exit the menu system and return to taking pictures.

A small, red and white bar scale should appear at the bottom of the camera monitor. A small green slider bar moves back and for the along the scale indicating the level of zoom that you are using. The camera is using all optical zoom while the slider is in the white zone of the bar, when the slider is in the red zone of the bar, the camera is using digital zoom as well.

See camera manual pages 72 and 85 to read more about using the zoom modes.

Using Macro Mode

Macro
Button

The camera has a macro mode that is used to take pictures of subjects that are very close to the camera lens.

- The working range of the macro mode is from about 8" to 32"
- Set macro mode by pressing the Spot/Macro button until the Macro symbol appears on the control panel. The macro symbol the flower icon drawn on the back of the camera
- Take the image as you would normally
- The monitor on the back of the camera will give you a better idea of the extent of the picture than the viewfinder when taking pictures in macro mode.

Take a Movie

The camera can be used to record short digital videos.

- Put the camera in movie mode by turning the mode dial to the movie icon.
- Start recording the video by pressing and releasing the shutter button.
- Stop recording by pressing and releasing the shutter button again.
- After you have finished recording, the card access lamp will blink while the video is written to the memory card. The camera is ready to acquire images again once the lamp stops blinking.
- The time that you have available to record movies and a memory gage are displayed in the lower left corner of the camera monitor. The time available is also displayed on the control panel.

For further reference see pages 65 – 66 in the camera manual.

Reviewing Images and Movies

The images that you have taken can be viewed on the camera monitor as soon as they are taken.

- Set the power/mode dial to the playback setting icon

- The most recent image taken will be displayed on the screen. If a movie was the last imagery stored by the camera, then the first frame of that movie will be displayed along with the movie camera icon in the image frame.

- Turn the zoom lever toward the "W", wide angle, to display and index of multiple images stored on the memory card.

- Turn the zoom lever toward the "T", telephoto, to show the highlighted image on the full screen of the monitor.

- The keys of the arrow pad can be used to navigate between the images stored on the card.

Camera manual pages 138 – 141

Stored images can also be viewed in a "quick view" mode accessible from the picture shooting modes.

- Press the monitor button twice to enter this mode. Pressing the monitor button again will end your viewing session and return you to picture shooting mode.

Camera manual pages 67 – 68

Movies stored in the camera can also be viewed on the built in monitor

- Select a stored movie the same way in which you would select a still image in playback mode or "quick view".

- Press the menu button

- Navigate to the "movie Play" item and press the right arrow button

- When "Start" appears, press the "OK" button

- The card access lamp will begin blinking and then the movie will begin to play

- The arrow keys can be used to navigate in the movie, ie advance and rewind

- The "OK" button can be used to pause the movie playback and can be used to restart play once the movie has been paused or ended

- Exit the movie mode by pressing the menu button to bring up the menu choices and then press the menu button again.

Camera manual pages 69 - 70

Deleting Images and Movies

Single images and movies may be deleted by pressing the erase button on the back of the camera when the image is displayed in playback mode.

All of the images stored on the card may be deleted in one operation using the menu system while the card is in playback mode.

- Set the camera in playback mode

- Press the menu key

- Use the up arrow key to select the "Card Setup" item.

- Press the right arrow key to display the options and use the up and down arrows to select the trashcan icon

- Press the "OK" button

- Select the "Yes" option to the confirmation question and press "OK"

Camera manual pages 71 and 152 - 153

Downloading Image Data

Flashpath Floppydisk Adapter

Adapter Back   Adapter Front

Battery
Doors
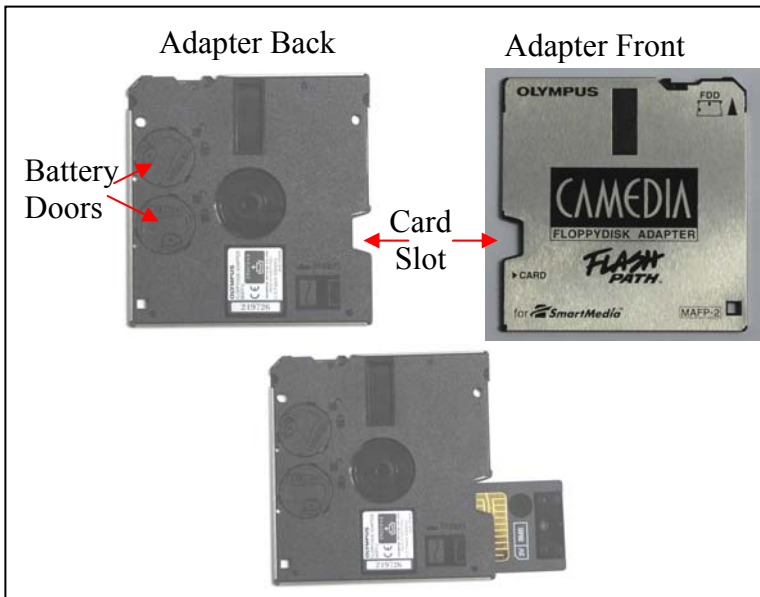
Card
Slot

The USDA will use a Smartmedia reader that fits into the floppy drive of your PC to transfer images from the memory card to the computer.
- This floppy disk drive adapter uses two coin shaped batteries for power. They are installed into the back of the adapter.
- The flash card slides into the side of the unit.
- The whole device is inserted into the floppy drive of the PC
- The adapter can only be used in the primary drive of the computer, not an external or network drive.
- Driver software needs to be installed on the PC in order for the adapter to work.

Transferring Data to a PC

Images and movies can be moved, renamed and deleted from the card using windows explorer. Transferring data between the memory card and the PC is a slow process and the adapter uses batteries each time you use the PC to access the card.

You should save the images to the hard drive of the PC before you view or manipulate them on the computer to save time and batteries. Name the image files and save them in the proper file structure as is determined by program purpose or need.

The images can be deleted from the card once they have been saved onto the computer. It is not necessary to preserve the file system written to the card because the camera will replace it.